FREQUENTLY ASKED QUESTIONS

Updated 6-16-10

TESTING QUESTIONS:

Why does my On-site test show a positive result yet the screening results from the Toxicology Laboratory are negative?

There may be differences in cutoff levels. Sample quality deteriorates over time so the levels may drop during, sometimes prolonged, storage at your office and during shipping. Certain drugs are more susceptible to degradation due to sunlight and heat than others. Urinary tract infections with e-coli can cause drugs in urine to disappear over time. Some drugs are more likely to have false positives due to over the counter medications which may differ between brands of On-sites and our screening reagents. The best choice is to send the samples as soon as possible to avoid loss of drugs and their metabolites. If you do need to store your samples, place them in a cool dark place, preferably a refrigerator, until shipment.

Why is the Laboratory unable to tell me what drugs cause a positive or false positive result on our On-site tests or specimens sent to other testing facilities?

There are many brands of On-site tests and each is unique when it comes to what drugs cause a positive or false positive result. We do not have the literature for the On-sites at the Laboratory. The information can be found on the literature that comes with the On-site tests or contact the company that supplies the tests. Other Laboratories may use different reagents and cross reactivity lists. Another Laboratory may also use different cutoff levels. It is best to contact the Laboratory that did the testing to get the correct information.

What may cause a false positive Phencyclidine (PCP) screening result?

Higher doses of Tramadol (Ultram, Ultracet, Topalgic, Tramal, Zamudol) may cause a false positive PCP. Triprolidine (ingredient of Actifed), an over the counter antihistamine, may cause a false positive PCP at urine levels over 10,000 ng/ml. Methylphenidate (Ritalin) may cause a false positive PCP at urine levels over 1,500 ng/ml.

Does Protonix, used for GERD, cause a false positive THC?

No. With our reagent system Protonix (Pantoprazole) does not cause a false positive THC. Every sample of a known Protonix user, that screened positive for THC and has requested confirmation by GC/MS, has contained THC.

Will Flexeril (Cyclobenzaprine), a muscle relaxant, cause a positive screening result?

No.

Are the samples screened for Ketamine?

No. If Ketamine usage is suspected a GC/MS confirmation test can be done upon request.

What causes a positive screening result for the Amphetamine Class of drugs to become a negative result in confirmation testing with the "Failed to Confirm" comment?

In large dosages, over the counter drugs such as Ranitidine (Zantac) and Pseudoephedrine (Sudafed) may cause a false positive Amphetamine screening result. There are other drugs that also cause a false positive when taken at higher than normal dosage, which is why confirmation testing is needed.

I only see Amphetamines listed on the screening results. Where is Methamphetamine?

The initial drug screening tests for the Amphetamine class of drugs, not just Amphetamine. It tests for Amphetamine, Methamphetamine, MDA (3, 4 Methylenedioxyamphetamine) and MDMA (3, 4 Methylenedioxymethamphetamine, Ecstasy, XTC). If you wish to know which of these was used you need to request confirmation of the sample.

If a client is prescribed Adderall will they initially test positive for Amphetamines?

Yes. Adderall is an amphetamine and is not distinguishable in our Lab from other Amphetamine sources. To make sure they are using only Amphetamine, not Methamphetamine, you would need to request confirmation of the sample.

What result would I see when the specimen of someone prescribed Adderall is confirmed?

The GC/MS confirmation results would list only Amphetamine.

Will Methylphenidate (Conceta, Metadate, Methylin, Ritalin), another drug used to treat ADHD, cause my client to screen positive for Amphetamines?

Methylphenidate will not cause a positive Amphetamine screening result when used at prescribed dosages.

What result would I see when a specimen of someone using Methamphetamine is confirmed?

The GC/MS confirmation results would list Methamphetamine and Amphetamine. Methamphetamine breaks down into Amphetamine, so you would see both.

Is there a nasal spray that causes a Methamphetamine result? Can prescription drugs confirm for Methamphetamine?

Products such as the Vicks inhaler and Walgreens Decongestant Vapor Inhaler, over the counter nasal decongestant sprays, contain L-Methamphetamine (L-desoxyephedrine). The active ingredient may be listed as Levmetamfetamine. It could cause a positive amphetamine class screening result, if the level in the urine is over 10,000 ng/ml for L- Methamphetamine and 12,500 ng/ml for L-Amphetamine, and would confirm for Methamphetamine and Amphetamine by GC/MS. It does not have the central nervous system activity of D-Methamphetamine. Selegiline (Eldepryl), which may be prescribed for Parkinson's disease, also metabolizes to L-Methamphetamine and L-Amphetamine.

Prescribed Methamphetamine is D-Methamphetamine (D-desoxyephedrine, Desoxyn, Methedrine), a mirror image (isomer) of L-Methamphetamine. It may be used in the treatment of obesity or narcolepsy. Illicit Methamphetamine is mostly D-Methamphetamine.

The only way to tell the D isomer apart from the L isomer is by chirality testing at another Laboratory. Benzphetamine (Didrex) and Famprofazone (ingredient of Gewodin) also metabolize to Methamphetamine and Amphetamine.

Asking the client if nasal sprays/inhalers or other medications are being used might be wise but **AVOID VOLUNTEERING INFORMATION ABOUT THE VICKS AND WALGREEN'S INHALER**! Many nasal decongestant sprays do not contain L-Methamphetamine so there is no reason for anyone to have to use one with it. Inhalers with the active ingredient Propylhexedrine (Benzedrex, Obesin), also known as hexahydro-desoxyephedrine or hexahydro-methamphetamine, does not metabolize to Methamphetamine. Propylhexedrine has been widely abused for its stimulant effects.

What is Ethyl Glucuronide (EtG)?

Ethyl Glucuronide (EtG) is a minor metabolite formed after the consumption (includes inhalation) of ethanol (ethyl alcohol). Ethanol must be consumed to detect EtG in the urine. It is possible to have ethyl alcohol in urine due to fermentation of urine sugars (diabetes) and bacteria or yeast. This alcohol is not metabolized in the liver so there is no EtG produced. The presence of EtG in urine indicates that ethanol was ingested within the previous 3 to 4 days, up to 80 hours after ethanol is eliminated from the body. It has been shown that EtG is stable in the urine at room temperature for more than 4 days. High temperatures do not appear to degrade EtG, as they do to some drugs and their metabolites.

At our cut off level (1000 ng/ml), incidental use of products containing ethanol will not cause positive screening results. The downside of a high cut off level is that only 80-90% of those consuming ethanol will be positive for EtG. Nyquil usage at recommended levels was not shown to produce a positive EtG result. Studies have shown that using Germ-X or Purell, ethanol based hand sanitizers (62% ethanol), did not cause positive screening results at our cut off level of 1000 ng/ml, even if used every 15 minutes all day. Gargling with mouthwash (12% ethanol) for 15 minutes will not cause a positive screening for EtG. Sterling Reference labs has a fact sheet on EtG at www.sterlingreflabs.com/etgfaq.html and information on incidental exposure at www.sterlingreflabs.com/etgincidental.html .

Can you confirm a positive Ethyl Glucuronide (EtG)?

Yes. It is a test that is more costly for the Laboratory to run and requires more machine maintenance so it is reserved for those that really require it. Offender Drug Testing Policy D 5-7.1 Section III G 8 states: "If the laboratory indicates the specimen is positive for use of alcohol through ethyl glucuronide (EtG) testing, the offender will not receive a violation report/notice of citation report recommending revocation unless the offender admits alcohol use, or a confirmation test has been performed."

The client was confirmed positive for Nordiazepam, Oxazepam and Temazepam. Does this mean they were taking three different drugs?

It is possible that three different drugs were taken, but it is more likely that Valium was used. Valium breaks down to all three metabolites. Finding one or more of the three could suggest Valium usage, depending on the situation. The commonly prescribed Benzodiazepines often metabolize to one or two of the three so it is difficult to tell the exact drug used.

When you do GC/MS confirmation of the Benzodiazepine Class of Drugs what are you looking for?

We routinely look for Nordiazepam (N), Oxazepam (O), Lorazepam (L), Temazepam (T), Alprazolam (ALP) and Alpha-hydroxyalprazolam (AHA). AHA and/or ALP are evidence of Xanax use. Use of Diazepam (Valium, Valrelease) or Medazepam (Nobrium) may have one or more of N, O, or T. Use of Prazepam (Centrax, Verstran), Chlordiazepoxide (Librium), or Clorazepate (Tranxene) may have N and/or O. Use of Oxazepam (Serax) may only have O. Use of Temazepam (methyloxazepam, Normison, Restoril) may have O and/or T. Use of Halazepam (Paxipam) may only have N. Use of Lorazepam (Ativan), Delorazepam (chlordesmethyldiazepam) and Lormetazepam (N-methyllorazepam, Loramet, Minias, Noctamid) may only have L. There are many Benzodiazepines in use, with

additional trade names for those listed. This list is just a portion of those commonly prescribed. Many more screen positive than we have the ability to confirm. Examples of some are: Mirtazapine (Remeron), Triazolam (Halcion), Clobazam (Frisium, Urbanyl), Flurazepam (Dalmane, Durapam), Fludiazepam and Bromazepam (Lectopam, Lexotan). Just because the specimen fails to confirm does not necessarily mean there was no Benzodiazepine use.

If you suspect use of the following they can be tested for upon request: Use of Flunitrazepam (Rohypnol) may have 7-aminoflunitrazepam. Use of Clonazepam (Clonopin, Klonopin, Rivotril) may have 7-aminoclonazepam. Use of Nitrazepam (Mogadon) may have 7-aminonitrazepam.

What drugs does GC/MS confirmation of the Opiate Class of Drugs find?

We routinely look for Codeine, Morphine, 6-acetylmorphine (Heroin metabolite), Hydrocodone (Dihydrocodeinone, ingredient of Anexsia, Damason-P, Hycodan, Lortab, Lorcet, Maxidone, Norco, Panacet, Vicodin, Zydone, Vicoprofen) Hydromorphone (Dihydromorphinone, Dilaudid), Oxycodone (Oxycotin, Roxicodone, ingredient of Percocet, Percodan, Roxicet, Tylox) and Oxymorphone (Numorphan).

Codeine breaks down into Morphine with sometimes a small amount of Hydrocodone and Hydromorphone. If Morphine is used you would find Morphine and sometimes a small amount of Hydromorphone. If Heroin is used and you collect a specimen within approximately 8 hours of use you could find 6-acetylmorphine. After that short window of time you would find Morphine and sometimes small amounts of Codeine and Hydromorphone. If Hydrocodone is used you would find Hydrocodone and usually Hydromorphone. If Hydromorphone is used you would only find Hydromorphone.

If Oxycodone is used you would likely find Oxycodone and Oxymorphone. If Oxymorphone was used you would only find Oxymorphone.

Illicit drugs are not always pure, so contaminants may present results other than what would usually be expected.

Will Tylenol #3 and Tylenol #4 or some prescription Cough medicines cause a positive Opiate screening result?

Yes. They contain Codeine.

Can eating Poppy seed muffins, bagels or cakes cause a positive result for Opiates?

It is possible, but unlikely, to exceed the 2000 ng/ml cut off for Opiates by consuming poppy seed muffins, bagels or cakes. It would depend on the origin of the poppy seeds, as the opiate content can vary greatly between sources. GC/MS confirmation usually has a Codeine and Morphine result.

Does use of Methadone cause a positive result for Opiates?

No.

What is Methadone?

Methadone (Dolophine, Methadose Symoron, Amidone, Physeptone, Heptadon and many others) is a synthetic Opioid that is prescribed as a pain killer, a cough suppressant and is useful in the treatment of Opiate dependence because it stops withdrawal symptoms. A single dose can suppress narcotic withdrawal for between 24 and 36 hours. It is useful in managing chronic pain as it is inexpensive and long acting.

What is Buprenorphine?

Buprenorphine (Subutex) is used as both an analgesic and for opioid addiction treatment. Buprenorphine can also be combined with Naloxone, a synthetic narcotic antagonist, (Suboxone). Some studies have suggested that the addition of Naloxone will produce unpleasant withdrawal symptoms if injected IV by clients that are addicted to opioids. It does not have the same effect when taken sublingually (dissolved under the tongue) and can still can produce a "high" if injected by a client that is not opioid dependent.

As a pain reliever Buprenorphine is 25-40 times more potent than Morphine. Typically doses of 0.2mg -0.6 mg, depending on dosing route, are given every 6-8 hours. For maintenance therapy of opiate addicts, high dose 2 mg and 8 mg tablets are available, with chronic daily doses ranging from 2-16 mg.

The Laboratory currently cannot screen for Buprenorphine, but a sample, perferably one that tested positive on an On-site test, can be confirmed by GC/MS at our Laboratory. Confirmation by GC/MS would have a Buprenorphine and/or Norbuprenorphine (Buprenorphine metabolite) result.

What is Propoxyphene?

Propoxyphene is usually used to treat mild to moderate pain. Darvon and Wygesic are Propoxyphene alone. Darvocet contains acetaminophen and Propoxyphene. Propo-N/APAP is generic Darvocet.

What Barbiturates would cause a positive screening result?

The Barbiturate class of drugs includes: Alphenal, Amobarbital (Amytal), Aprobarbital (Alurate), Barbital (Deba), Butabarbital (Butisol, Buticaps, Busodium), Butalbital (Butalgen, Fiorgen, Fiorinal, Fiormor, Isobutyl, Isolin, Isollyl, Laninoif, Allybarbital, Allybarbitone, Itobarbital, Sandoptal, Larnorinal), Butethal, Diallybarbital, Pentobarbital (Nembutal), Phenobarbital (Luminal), Secobarbital (Seconal, Tuinal), Talbutal (Lotusate,Lotusate, Profundol), and Thiopental (Sodium Pentothal, Thiopental, Thiopentone sodium, Trapanal)). There may be many other Trade names than those listed.

Fiorinal and Fioricet may also be combined with Codeine which is an Opiate.

What Barbiturates can the Laboratory Confirm?

GC/MS confirmation testing can be done for: Butalbital, Pentobarbital, Secobarbital and Phenobarbital. Thiopental metabolizes in part to Pentobarbitol and may be confirmable in higher doses. There are more Barbiturates that can cause a positive screening result than the Laboratory can confirm by GC/MS. A 'Failed to Confirm' confirmation result does not mean there were not other Barbiturates used.

What does a "FAILED TO CONFIRM" comment mean?

The "FAILED TO CONFIRM" comment simply means the client has a NEGATIVE drug test result and is not subject to a violation report.

Sometimes a sample is initially tested and the screening result is positive. Additional testing by GC/MS gives a negative confirmation result. GC/MS confirmation of a drug or drug class is a very selective test that is looking for the ions of the drugs and/or their metabolites and is not subject to false positive results. The result is then changed to negative and the comment "FAILED TO CONFIRM" is added. For some classes of drugs there are more drugs that are screened for than we have the ability to confirm by GC/MS. For others it is a situation of cross-reactivity with over the counter products such as Ranitidine, high doses of Pseudoephedrine, or other prescription drugs such as Tramadol and Phentermine.